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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
COFFY, EMMANUEL	
ART UNIT	**PAPER NUMBER**
2157	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/992,790	ZHENG, HAIHONG	
	Examiner	Art Unit	
	Emmanuel Coffy	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 March 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/23/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the application filed on November 5, 2001. Claims 1-20 are pending. Claims 1-20 are directed to an "Apparatus and Associated Method For Facilitating QoS and Bearer Set-up in an IP-Based Communication System."

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-4 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grob et al. (US 6,894,994.)

Grob teaches a high speed Internet back-bone wireless packet data communication system. Which includes one or more servers. The servers may include, for example (1) a RADIUS server that provides authentication, authorization and accounting functions, (2) an OAM&P server that provides configuration and management functions, (3) a DHCP server that dynamically assigns IP addresses for

the access terminals, and (4) an account server that stores user profile information. (See summary.)

Claim 1:

In a communication system having a communication node selectably operable to communicate by way of a communication network with a correspondent node, the communication network having at least a first application-level entity, an improvement of apparatus for facilitating bearer setup of a bearer between the communication node and the correspondent node through operation of a selected bearer manager, the selected bearer manager having a network identifier identifying a network location thereof, said apparatus comprising: (See Fig. 1)

a first bearer setup request generator associated with the first application-level entity, said first bearer setup request generator for generating a first bearer setup request, the first bearer setup request for requesting the selected bearer manager to create the bearer between the communication node and the correspondent node, the first bearer setup request, when generated at the first application-level entity, free of the network identifier identifying the network location. (See Fig. 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22.)

Claim 2:

The apparatus of claim 1 wherein the communication network comprises an application level and a transport level, wherein the first application-level entity forms a portion of the application level, and wherein said first bearer setup request generator forms a portion of the application level. (See Fig. 9A , 9B, 10A, 10B, 13B, 13C, 13D and

col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22.)

Claim 3:

The apparatus of claim 2 wherein the first bearer setup request generated by said first bearer setup request generator is sent to the transport level. (See Fig. 9A , 9B, and col. 12-col.15, line 54)

Claim 4:

The apparatus of claim 3 wherein the separate-level transport level comprises an AAA (Authentication Authorization Accounting) entity, and wherein the first bearer setup request generated by said first bearer setup request generator is sent to the AAA entity. (See Fig. 14A and col. 19, line 22-col. 20, line 5.)

Claim 17:

In a method for communicating in a communication system having a communication node selectably operable to communicate by way of a communication network with a correspondent node, the communication network having at least a first application-level entity, an improvement of a method for facilitating bearer setup of a bearer between the communication node and the correspondent node through operation of a selected bearer manager, the selected bearer manager having a network identifier identifying a network location thereof, said method comprising: (See Fig. 1)

selectably generating a first bearer setup request at a first application-level entity, the first bearer setup request for requesting the selected bearer manager to create the bearer between the communication node and the correspondent node, the first bearer setup request, when generated at the first application-level entity, free of the network

identifier identifying the network location; and (See Fig. 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22.)

providing the first bearer setup request, generated during said operation of selectably generating, to a transport-level signaling layer entity. (See Fig. 9A , 9B, and col. 12-col.15, line 54)

Claim 18:

The method of claim 17 wherein the first application-level entity comprises a first application server, and wherein the first bearer setup request generated during said operation of selectably generating is generated at the first application server. (See Fig. 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22.)

Claim 19:

The method of claim 18 further comprising the additional operation of routing, from the transport-level signaling layer entity, a separate-level signaling-layer request signal to the selected bearer manager. (See Fig. 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22.)

Claim 20:

The method of claim 19 further comprising the operation of returning a bearer-manager response message to the first application server. (See Fig. 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22.)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grob et al. (US 6,894,994) in view of Vuong (US 6,765,912.)

Grob teaches a high speed Internet back-bone wireless packet data communication system. Which includes one or more servers. The servers may include, for example (1) a RADIUS server that provides authentication, authorization and accounting functions, (2) an OAM&P server that provides configuration and management functions, (3) a DHCP server that dynamically assigns IP addresses for the access terminals, and (4) an account server that stores user profile information. (See summary.)

Claim 5:

The apparatus of claim 4 further comprising a second bearer setup request generator associated with the AAA entity and coupled to receive an indication of the first bearer setup request generated by said first bearer setup request generator, said second bearer request generator for generating a transport-level bearer setup request, the transport-level bearer setup request for delivery to the selected bearer manager to request the bearer manager, when delivered thereat, to create the bearer between the communication node and the correspondent node.

Grob does not specifically teach a second bearer setup request generator for generating a transport-level bearer setup request. However, Vuong explicitly teaches a second bearer setup. See Fig. 2, col. 7, lines 28-34 and col. 8, lines 49-52.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of communications system taught by Grob with the second bearer setup request generator as taught by Vuong because this would provide a redundant setup mechanism for the system by providing a separate path for bearer setup.

Claim 6:

The apparatus of claim 5 wherein the communication network comprises a first network portion and at least a second network portion, the first network portion defining a home network of the mobile node and the second network portion defining a visited network of the communication node, and wherein the first application-level entity with which said first bearer setup request generator is associated and the AAA entity with which said transport-level bearer setup request generator is associated are positioned at the visited network portion. (See Grob Fig. 1: Internet and IP network (134); See Fig. 14A and col. 19, line 22-col. 20, line 5.))

Claim 7:

The apparatus of claim 5 wherein the communication network comprises a first network portion and at least a second network portion, the first network portion defining a home network of the communication node and the second network portion defining a visited network portion, wherein the at least the first application-level entity comprises a first application server and a second application server, the second application server

also forming a portion of the application level, the second application server associated with the visited network portion and the first application server associated with the home network portion, said first bearer setup request generator for generating the first bearer setup request responsive to an application-level signal provided thereto. (See Grob Fig. 1: Internet and IP network (134), and Fig. 10A, 10 B, and col. 14, lines 29-col. 15, line 3.)

Claim 8:

The apparatus of claim 7 wherein the AAA entity comprises a home-network AAA entity and a visited-network AAA entity, and wherein the first bearer setup request is sent by said first bearer setup request generator to the home-network AAA entity. . (See Grob Fig. 1: Internet and IP network (134), and Fig. 10A, 10 B, and col. 14, lines 29-col. 15, line 3.)

Claim 9:

The apparatus of claim 8 wherein said second bearer setup request message generator generates the transport-level bearer setup request by way of the visited-network AAA entity to the selected bearer manager. (See Grob Fig. 1: Internet and IP network (134), and Fig. 10A, 10 B, and col. 14, lines 29-col. 15, line 3.)

Grob does not specifically teach a second bearer setup request generator for generating a transport-level bearer setup request. However, Vuong explicitly teaches a second bearer setup. See Fig. 2, col. 7, lines 28-34 and col. 8, lines 49-52.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of communications system taught by Grob with the second bearer setup request generator as taught by Vuong because this would

provide a redundant setup mechanism for the system by providing a separate path for bearer setup.

Claim 10:

The apparatus of claim 9 wherein the transport-level bearer setup request message generated by said second bearer setup request message comprises an AAA-protocol message. (See Fig. 14A and col. 19, line 22-col. 20, line 5.)

Grob does not specifically teach a second bearer setup request generator for generating a transport-level bearer setup request. However, Vuong explicitly teaches a second bearer setup. See Fig. 2, col. 7, lines 28-34 and col. 8, lines 49-52.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of communications system taught by Grob with the second bearer setup request generator as taught by Vuong because this would provide a redundant setup mechanism for the system by providing a separate path for bearer setup.

Claim 11:

The apparatus of claim 10 the selected bearer manager to which the transport-level bearer request is delivered generates a response message, and wherein said second bearer setup request generator further detects the response message.

Grob does not specifically teach a second bearer setup request generator for generating a transport-level bearer setup request. However, Vuong explicitly teaches a second bearer setup. See Fig. 2, col. 7, lines 28-34 and col. 8, lines 49-52.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of communications system taught by Grob with

the second bearer setup request generator as taught by Vuong because this would provide a redundant setup mechanism for the system by providing a separate path for bearer setup.

Claim 12:

The apparatus of claim 11 wherein the response message generated by the selected bearer forms an AAA-protocol message. (See Fig. 14A and col. 19, line 22-col. 20, line 5.)

Grob does not specifically teach a second bearer setup request generator for generating a transport-level bearer setup request. However, Vuong explicitly teaches a second bearer setup. See Fig. 2, col. 7, lines 28-34 and col. 8, lines 49-52.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of communications system taught by Grob with the second bearer setup request generator as taught by Vuong because this would provide a redundant setup mechanism for the system by providing a separate path for bearer setup.

Claim 13:

The apparatus of claim 11 wherein said second bearer setup request generator further returns an indication of the response message to said first bearer setup request generator. Grob does not specifically teach a second bearer setup request generator for generating a transport-level bearer setup request. However, Vuong explicitly teaches a second bearer setup. See Fig. 2, col. 7, lines 28-34 and col. 8, lines 49-52.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of communications system taught by Grob with

the second bearer setup request generator as taught by Vuong because this would provide a redundant setup mechanism for the system by providing a separate path for bearer setup.

Claim 14:

The apparatus of claim 13 wherein said first bearer setup request message generator further generates an application-level message for communication to the mobile node, the application-level message indicative of the response message generated by the selected bearer manager. See Fig. 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22 and See Grob Fig. 1: Internet and IP network (134); See Fig. 14A and col. 19, line 22-col. 20, line 5.))

Claim 15:

The apparatus of claim 1 wherein the communication system comprises a radio communication system and the communication node comprises a mobile node, wherein the communication network comprises a first network portion and at least a second network portion, the first network portion defining a home network of the mobile node and the second network portion defining a visited network of the mobile node, wherein the first application-level entity comprises a home-network application server and wherein said first bearer setup request generator is associated with the home-network server. (See Fig. 1, 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22.)

Claim 16:

The apparatus of claim 1 wherein the communication system comprises a radio communication system and the communication node comprises a mobile node, wherein

the communication network comprises a first network portion and at least a second network portion, the first network portion defining a home network of the mobile node and the second network portion defining a visited network of the mobile node, wherein the first application-level entity comprises a visited-network application server, and wherein said first bearer setup request generator is associated with the visited-network server. (See Fig. 1, 9A , 9B, 10A, 10B, 13B, 13C, 13D and col. 12-col.15, line 54 and col. 17, line 31-col. 19, line 22 and See Grob Fig. 1: Internet and IP network (134); See Fig. 14A and col. 19, line 22-col. 20, line 5.))

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Elliott et al. (U.S. 5,867,495) teaches " System, Method and Article of Manufacture for Communications Utilizing Calling, Plans in a Hybrid Network."
- Elliott et al. (U.S. 6,614,781) teaches " Voice over Data in TeleCommunications Network Architecture."
- Elliott et al. (U.S. 6,754,181) teaches " System & Method for a Directory Service Supporting a Hybrid Network."
- Elliott et al. (U.S. 5,867,495) teaches "Elliott et al. (U.S. 6,335,927) teaches "System & Method for a Providing Requested Quality Service a Hybrid Network."

]

CONCLUSION

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Coffy whose telephone number is (571) 272-3997. The examiner can normally be reached on 8:30 - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-3997. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Coffy
Patent Examiner
Art Unit 2157

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EC
June 27, 2005

SALEH NAJJAR
PRIMARY EXAMINER